

WHAT IS CLAIMED IS:

1. An optical disk provided on one surface thereof with a label, and obtained by a method comprising the steps of:

forming an image on an intermediate transfer medium by a thermal transfer process; and

transferring the image from the intermediate transfer medium onto the surface of the optical disk to form the label on the optical disk.

2. An optical disk provided on one surface thereof with an image receptive layer carrying an image and forming a label, and obtained by a method comprising the steps of:

forming the image on the image receptive layer of an intermediate transfer medium by a thermal transfer process; and

transferring the image receptive layer carrying the image from the intermediate transfer medium onto the surface of the optical disk to form the label on the surface of the optical disk.

3. An optical disk according to claim 2, wherein an adhesive layer is formed between the image receptive layer and the surface of the optical disk.

4. An optical disk according to claim 2, wherein an adhesive layer and a white layer are formed between the image receptive layer and the surface of the optical disk.

5. A method of forming an image on an optical disk comprising the steps of:

forming the image on one surface of an intermediate transfer medium by transferring a coloring matter from a thermal transfer sheet having a color layer by a thermal transfer process;

laying the intermediate transfer medium and the optical

disk one on top of the other with the image on the intermediate transfer medium in close contact with the surface of the optical disk; and

transferring the image onto the surface of the optical disk by applying heat and/or pressure to the intermediate transfer medium.

6. A method of forming an image on an optical disk comprising the steps of:

forming the image on an image receptive layer formed on one surface of an intermediate transfer medium by transferring a coloring matter from a thermal transfer sheet provided on its surface with a color layer to the image receptive layer of the intermediate transfer medium by a thermal transfer process;

laying the intermediate transfer medium and the optical disk one on top of the other with the image receptive layer in close contact with one surface of the optical disk; and

transferring the image receptive layer from the intermediate transfer medium to the optical disk by applying heat and/or pressure to the intermediate transfer medium by a transfer means.

7. A method of forming an image on an optical disk, according to claim 6, further comprising:

a step of forming an adhesive layer at least on either the image receptive layer of the intermediate transfer medium or the surface of the optical disk prior to the step of laying the intermediate transfer medium and the optical disk one on top of the other.

8. A method of forming an image on an optical disk, according to claim 7, wherein

the step of forming the adhesive layer comprises laying an adhesive layer transfer sheet having a base sheet and the adhesive layer peelably formed on one surface of the base sheet, and the intermediate transfer medium or the

optical disk on top of the other with the adhesive layer, and the image receptive layer of the intermediate transfer medium or the surface of the optical disk in close contact with each other, and applying heat and/or pressure to the adhesive layer transfer sheet.

9. A method of forming an image on an optical disk, according to claim 7, wherein

the thermal transfer sheet is further provided with an adhesive layer, and

the adhesive layer of the thermal transfer sheet is transferred to the image receptive layer of the intermediate transfer medium in the step of forming the image on the image receptive layer of the intermediate transfer medium.

10. A method of forming an image on an optical disk, according to claim 7, wherein

the intermediate transfer medium is further provided with an adhesive layer, and

the adhesive layer of the intermediate transfer medium is transferred to the optical disk prior to the step of transferring the image receptive layer of the intermediate transfer medium to the optical disk.

11. An adhesive layer transfer sheet comprising:

a base sheet; and

an adhesive layer formed on one surface of the base sheet and capable of being peeled off the base sheet.

12. An adhesive layer transfer sheet according to claim 11, further comprising a white layer overlying the adhesive layer.

13. An adhesive layer transfer sheet according to claim 12, further comprising an additional adhesive layer overlying the white layer

14. An adhesive layer transfer sheet comprising:
a base sheet;
a white layer formed on one surface of the base sheet
and capable of being peeled off the base sheet; and
an adhesive layer formed on the white layer.

15. A thermal transfer sheet comprising:
a thermal transfer base sheet;
a color layer formed on one surface of the thermal
transfer base sheet; and
an adhesive layer formed on the same surface of the
thermal transfer base sheet contiguously with the color
layer and capable of being peeled off the thermal transfer
base sheet.

16. An intermediate transfer medium comprising:
a transfer base sheet;
an image receptive layer formed on one surface of the
transfer base sheet and capable of being peeled off the
transfer base sheet; and
an adhesive layer formed on the same surface of the
transfer base sheet contiguously with the image receptive
layer and capable of being peeled off the transfer base
sheet.

17. A method of forming an image on an optical disk
comprising the steps of:

preparing a thermal transfer sheet comprising a thermal
transfer base sheet and at least a color layer formed on
one surface of the thermal transfer base sheet, and an
intermediate transfer medium comprising an intermediate
transfer base sheet and at least an image receptive layer
formed on one surface of the intermediate transfer base
sheet;

forming the image on the image receptive layer of the
intermediate transfer medium by laying the thermal transfer
sheet and the intermediate transfer medium one on top of

the other with the color layer and the image receptive layer in close contact with each other, compressing the thermal transfer sheet and the intermediate transfer medium between a thermal head and a platen roller, and selectively energizing heating elements of the thermal head according to image data to transfer a thermomigratory coloring matter contained in the color layer of the thermal transfer sheet from the color layer of the thermal transfer sheet to the image receptive layer of the intermediate transfer medium; and

transferring the image receptive layer carrying the image from the intermediate thermal transfer medium to the optical disk by heating the intermediate transfer medium pressed against the optical disk.

18. A method of forming an image on an optical disk, according to claim 17, wherein

the step of transferring the image receptive layer carrying the image to the surface of the optical disk comprises pressing the intermediate transfer medium against the optical disk and heating the intermediate transfer medium with a thermal head, a line heater or a hot stamper having a surface temperature in the range of 50 to 200°C, an applying pressure in the range of 0.1 to 5 kg/cm² and a pressure time in the range of 0.3 to 20 sec.

19. A method of forming an image on an optical disk, according to claim 17, wherein

the step of transferring the image receptive layer carrying the image to the surface of the optical disk comprises pressing the intermediate transfer medium against the optical disk and heating the intermediate transfer medium with a heat roller having a pattern corresponding to that of the optical disk, a surface temperature in the range of 50 to 200°C and a surface speed in the range of 5 to 100 mm/sec.

20. A method of forming an image on an optical disk, according to claim 19, wherein

the heat roller and the optical disk are set in register before pressing the intermediate transfer medium against the optical disk and heating the intermediate transfer medium, and then the heat roller is rotated at the same speed as the conveying speed of the optical disk.

21. An image forming apparatus for forming an image on an optical disk comprising:

thermal transfer sheet conveying means for conveying a thermal transfer sheet comprising a thermal transfer base sheet and at least a color layer formed on one surface of the thermal transfer base sheet;

intermediate transfer medium conveying means for conveying an intermediate transfer medium comprising an intermediate transfer base sheet and an image receptive layer formed on one surface of the intermediate transfer base sheet;

image forming means comprising a thermal head and a platen roller, for forming the image on the image receptive layer by laying the thermal transfer sheet and the intermediate transfer medium one on top of the other with the color layer and the image receptive layer in close contact with each other, compressing the combination of the thermal transfer sheet and the intermediate transfer medium between the thermal head and the platen roller, and selectively energizing the heating elements of the thermal head according to image data to transfer a thermomigratory coloring matter contained in the color layer from the color layer to the image receptive layer; and

image receptive layer transferring means comprising a heating means, for transferring the image receptive layer carrying the image from the intermediate transfer medium to the optical disk by laying the intermediate transfer medium having the image receptive layer carrying the image and the optical disk one on top of the other, and heating the

intermediate transfer medium by the heating means.

22. An image forming apparatus for forming an image on an optical disk comprising:

intermediate transfer medium conveying means for conveying an intermediate transfer medium comprising an intermediate transfer base sheet and at least an image receptive layer carrying the image formed of a thermomigratory coloring matter contained in the image receptive layer; and

image receptive layer transfer means comprising heating means, for transferring the image receptive layer of the intermediate transfer medium to the optical disk by laying the intermediate transfer medium and the optical disk one on top of the other and heating the intermediate transfer medium by the heating means.

23. An image forming apparatus for forming an image on an optical disk, according to claim 21 or 22, wherein

the heating means is either of a thermal head, a line heater or a hot stamper having a surface temperature in the range of 50 to 200°C, an applying pressure in the range of 0.1 to 5 kg/cm² and a pressure time in the range of 0.3 to 20 sec.

24. An image forming apparatus for forming an image on an optical disk, according to claim 21 or 22, wherein

the heating means is a heat roller having a pattern corresponding to that of the optical disk, a surface temperature in the range of 50 to 200°C and a surface speed in the range of 5 to 100 mm/sec.

25. An image forming apparatus for forming an image on an optical disk, according to claim 24 wherein

the intermediate transfer medium conveying means conveys the intermediate transfer medium and the optical

disk simultaneously, and the conveying speed of the intermediate transfer medium conveying means and the surface speed of the heat roller are equal to each other.

26. An image forming apparatus for forming an image on an optical disk, according to claim 25 further comprising:
a registering mechanism for registering the optical disk and the heat roller.

27. An image forming apparatus for forming an image on an optical disk, according to claim 21 or 22, wherein
the image receptive layer transfer means has an optical disk support member disposed opposite to the heating means with respect to the combination of the intermediate transfer medium and the optical disk, and having a lubricative working surface.

28. An image forming apparatus for forming an image on an optical disk, according to claim 21 or 22, wherein
the image receptive layer transfer means has an optical disk support member disposed opposite to the heating means with respect to the combination of the intermediate transfer medium and the optical disk, and having a cushioning working surface.